

CLAIMS

What is claimed is:

1. A method for writing position information to a rotatable storage medium, comprising:

5           writing a first servo burst during a first pass of a write element over a rotatable medium;

          trimming the first servo burst during a second pass of the write element;

          writing a second servo burst during a third pass of the write element;

10       and

          writing a third servo burst during a fourth pass of the write element, wherein the first servo burst, second servo burst, and third servo burst each have an edge that can be used to determine the position during a subsequent pass over those servo bursts.

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2. A method according to claim 1, wherein:

          the first servo burst has a trimmed edge defining a first portion of a burst boundary, and each of the second and third servo bursts have a written edge, the written edges defining a second portion of the burst boundary.

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3. A method according to claim 2, further comprising:

          using the trimmed edge of the first servo burst and the written edges of the second and third servo bursts to determine the position of the write element.

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4. A method according to claim 1, wherein:

          the width of the first servo burst after trimming is approximately the width of a track of servo data.

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5. A method according to claim 1, wherein:

the third servo burst is only written if the transition defined by the first and second servo bursts determines the position of a data track centerline.

5        6. A method according to claim 1, wherein:

the first, second, and third servo bursts are contained in a servo wedge on the rotatable medium.

7. A method according to claim 1, wherein:

10        the third pass occurs before the second pass.

8. A method for writing position information to a rotatable storage medium, comprising:

15        writing a first servo burst during a first pass of a write element over a rotating medium;

trimming the first servo burst during a second pass of the write element;

20        writing a second servo burst during a third pass of the write element wherein the first servo burst and second servo burst each have an edge forming a burst transition that can be used to determine the position of the write element during a subsequent pass over those burst patterns; and

writing a third servo burst during a fourth pass of the write element if the burst transition defines the position of a data track centerline.

25        9. A method according to claim 8, wherein:

the trimming of the first servo burst during the second pass trims less than all of the first servo burst.

10. A method according to claim 9, further comprising:

30        using a fifth pass to trim that portion of the first servo burst that was not trimmed during the second pass.

11. A method for writing position information to a rotating medium, comprising:

5 writing at least a portion of a first burst pattern during a first pass of a write element over a rotating medium;

trimming at least a portion of a first burst pattern during a second pass of the write element;

10 writing at least a portion of a second burst pattern during a third pass of the write element, wherein the first burst pattern and second burst pattern each have an edge defining a burst transition that can be used to determine the position of the write element during a subsequent pass over those patterns; and

15 writing at least a portion of a third burst pattern during a fourth pass of the write element if the transition defines the position of a track centerline, wherein the third burst pattern is also used to define the burst transition.

12. A method for manufacturing a hard disk drive, comprising:

20 providing means for writing a first servo burst during a first pass of a write element over a rotatable medium;

providing means for trimming the first servo burst during a second pass of the write element;

providing means for writing a second servo burst during a third pass of the write element; and

25 providing means for writing a third servo burst during a fourth pass of the write element, wherein the first servo burst, second servo burst, and third servo burst each have an edge that can be used to determine position during a subsequent pass over those burst patterns.